



## SOT-23 Plastic-Encapsulate Transistors

**FMMT4124** TRANSISTOR ( NPN )

### FEATURES

Power dissipation

$$P_{CM} : 0.33W ( T_{amb}=25 )$$

Collector current

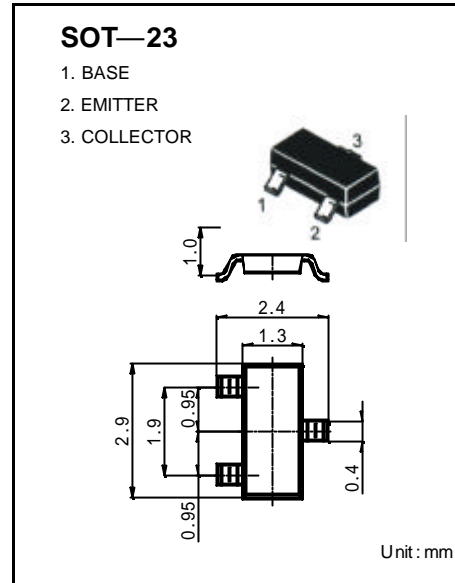
$$I_{CM} : 0.2A$$

Collector-base voltage

$$V_{(BR)CBO} : 30V$$

Operating and storage junction temperature range

$$T_J, T_{stg} : -55 \text{ to } +150$$



### ELECTRICAL CHARACTERISTICS ( $T_{amb}=25$ unless otherwise specified )

| Parameter                            | Symbol        | Test conditions                      | MIN | TYP | MAX  | UNIT    |
|--------------------------------------|---------------|--------------------------------------|-----|-----|------|---------|
| Collector-base breakdown voltage     | $V_{(BR)CBO}$ | $I_C=10 \mu A, I_E=0$                | 30  |     |      | V       |
| Collector-emitter breakdown voltage  | $V_{(BR)CEO}$ | $I_C=1mA, I_B=0$                     | 25  |     |      | V       |
| Emitter-base breakdown voltage       | $V_{(BR)EBO}$ | $I_E=10 \mu A, I_C=0$                | 5   |     |      | V       |
| Collector cut-off current            | $I_{CBO}$     | $V_{CB}=20V, I_E=0$                  |     |     | 0.05 | $\mu A$ |
| Emitter cut-off current              | $I_{EBO}$     | $V_{EB}=3V, I_C=0$                   |     |     | 0.05 | $\mu A$ |
| DC current gain                      | $H_{FE}$      | $V_{CE}=1V, I_C=2mA$                 | 120 |     | 360  |         |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C=50mA, I_B=5mA$                  |     |     | 0.3  | V       |
| Base-emitter saturation voltage      | $V_{BE(sat)}$ | $I_C=50mA, I_B=5mA$                  |     |     | 0.95 | V       |
| Transition frequency                 | $f_T$         | $V_{CE}=20V, I_C=10mA$<br>$f=100MHz$ | 300 |     |      | MHz     |

|         |               |
|---------|---------------|
| Marking | FMMT4124 : 2C |
|---------|---------------|

# Typical Characteristics

# FMMT4124

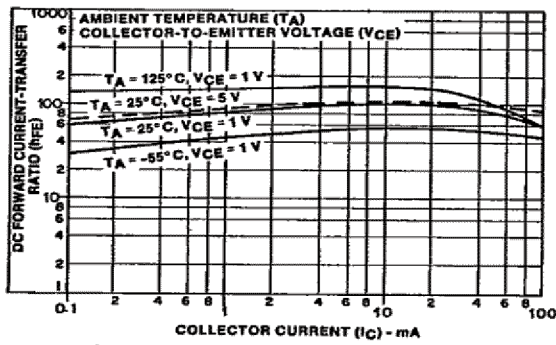


Fig. 1 - Typical dc forward current transfer ratio characteristics for 2N4123.

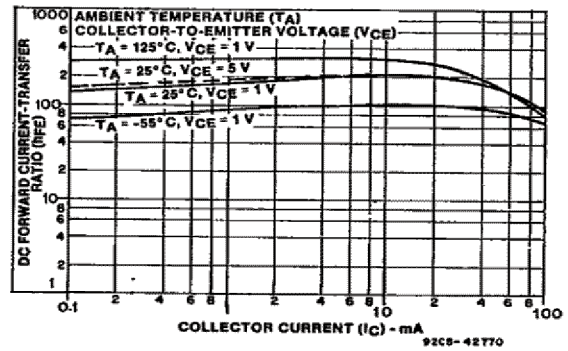


Fig. 2 - Typical dc forward current transfer ratio characteristics for 2N4124.

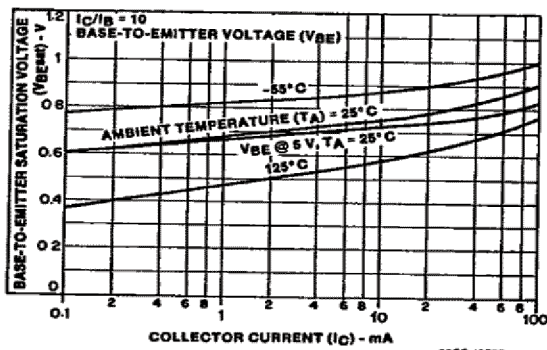


Fig. 3 - Typical base-to-emitter saturation voltage characteristics for 2N4123 and 2N4124.

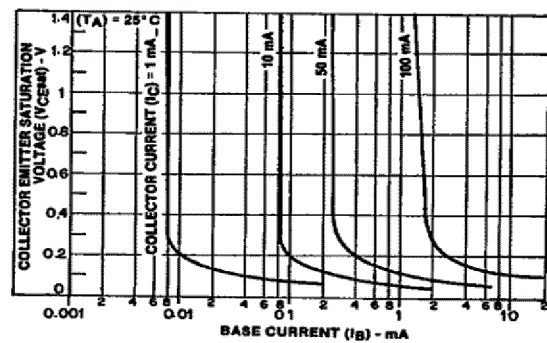


Fig. 4 - Typical collector-to-emitter saturation voltage characteristics for 2N4124 and 2N4123.

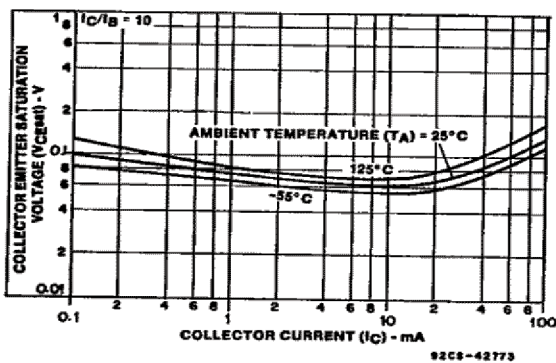


Fig. 5 - Typical collector-to-emitter saturation voltage characteristics for 2N4123.

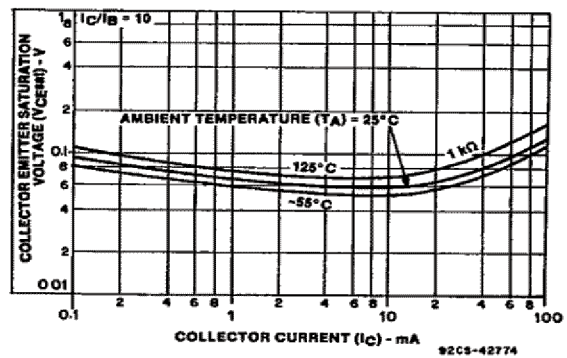


Fig. 6 - Typical collector-to-emitter saturation voltage characteristics for 2N4124.

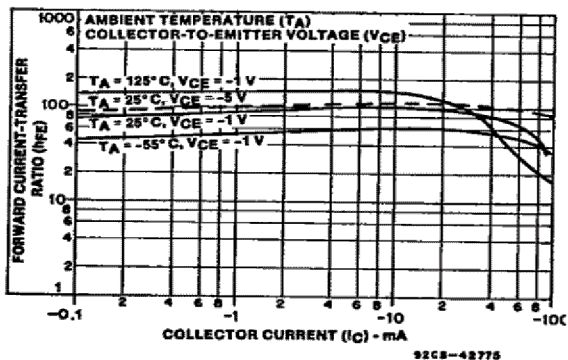


Fig. 7 - Typical dc forward-current transfer ratio characteristics for 2N4125.

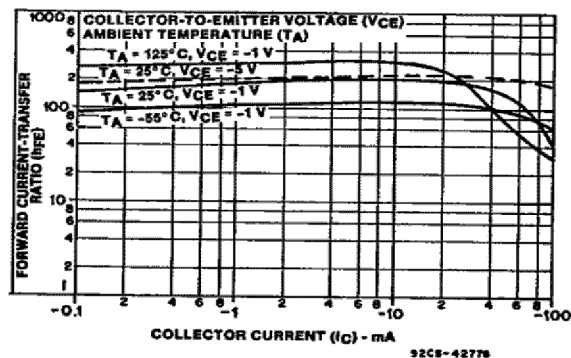


Fig. 8 - Typical dc forward-current transfer ratio characteristics for 2N4126.

# Typical Characteristics

# FMMT4124

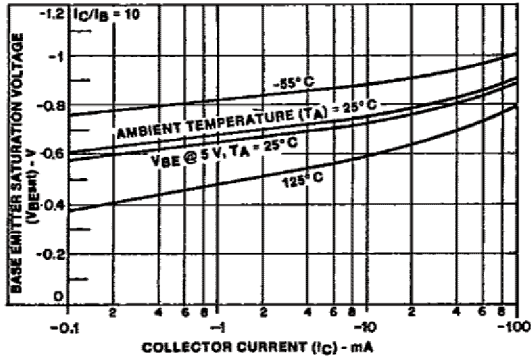


Fig. 9—Typical base-to-emitter saturation voltage characteristics for 2N4125 and 2N4126.

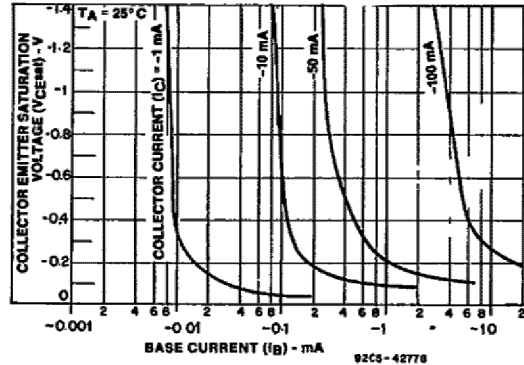


Fig. 10—Typical collector-to-emitter saturation voltage characteristics for 2N4125 and 2N4126.

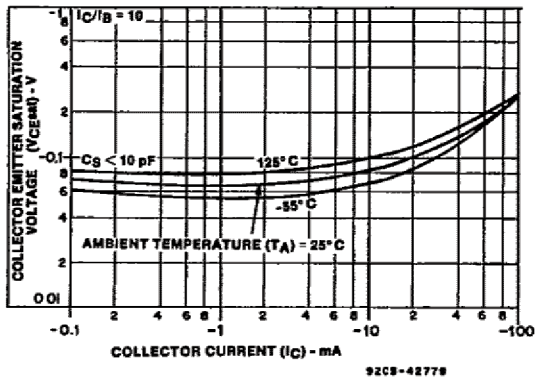


Fig. 11—Typical collector-to-emitter saturation voltage characteristics for 2N4125.

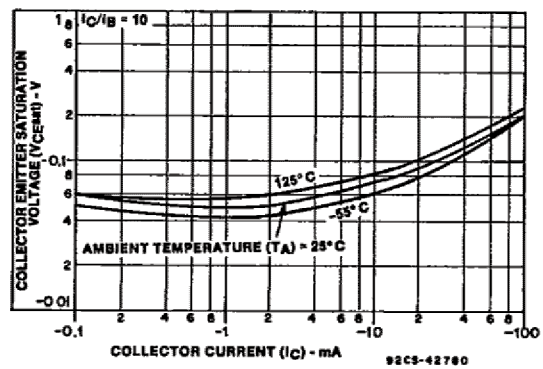


Fig. 12—Typical collector-to-emitter saturation voltage characteristics for 2N4126.